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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,448	06.12.2001	Robert A. Migliorini	2001B056	3553

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EXAMINER

KEEHAN, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 04/22/2002

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,448

Applicant(s)

MIGLIORINI ET AL.

Examiner

Christopher M. Keehan

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 12 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claim 51 is objected to because of the following informalities: it appears "teraphthalate" should be spelled -terephthalate- .

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-4, 7-21, 23-25, 31-45, and 48-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Peiffer et al. (6,086,982). Peiffer et al. disclose a thermoplastic film comprising a core layer comprising polyolefin wherein the core layer comprises the interior of the film, a first transition layer comprising a polyolefin and a silicone additive (col.6, lines 60-67), wherein the first transition layer is exterior to the core layer, and a first skin layer comprising a polyolefin wherein the first skin layer is exterior to the first transition layer and the core layer (col.3, lines 19-30).

Regarding Claim 2, Peiffer et al. disclose wherein the first skin layer has an exposed surface and wherein the exposed surface of the first skin layer is subjected to a treatment selected from the instantly claimed group (col.8, lines 15-40).

Regarding Claims 3 and 4, Peiffer et al. disclose a silicone additive of the first transition layer is a polydialkylsiloxane, and a polydimethylsiloxane (col.6, lines 60-67).

Regarding Claims 7-9, Peiffer et al. disclose wherein the first skin layer further comprises an anti-blocking agent and wherein at least a major proportion of the anti-blocking agent is in the form of particles of approximately spherical shape, wherein the anti-blocking agent is selected from the group as instantly claimed (Claim 8), and wherein the anti-blocking agent is silica particles wherein at least a major proportion of which are approximately spherical in shape (col.5, lines 18-29).

Regarding Claim 10, Peiffer et al. disclose wherein the first skin layer comprises a polymer selected from the group as instantly claimed (col.5, line 57-col.6, line 50).

Regarding Claim 11, Peiffer et al. disclose wherein the ethylene-propylene-butene-1 terpolymer component comprises from about 10 to about 90 weight percent of the blend and the ethylene-propylene random copolymer comprises from about 10 to about 90 weight percent of the blend (col.5, line 57-col.6, line 50).

Regarding Claims 12 and 13, Peiffer et al. disclose an ethylene-propylene-butene-1 terpolymer obtained from random interpolymerization of 0.1 to 7 percent by weight ethylene, with from 50 to 90 percent by weight of propylene, and a 1-butene content of 10 to 40 percent by weight (col.6, lines 29-35), which is included in the instantly claimed ranges.

Regarding Claim 14, Peiffer et al. disclose the ethylene-propylene random copolymer is obtained from random co-polymerization having an ethylene content of 1

Art Unit: 1712

to 10 percent by weight based on the total weight of the copolymer (col.6, lines 12-15), which encompasses the instantly claimed range.

Regarding Claim 15, Peiffer et al. disclose the propylene-butene-1 copolymer is obtained from random co-polymerization of from about 10 to 40 percent by weight of butene-1 and 50 to 90 weight percent of propylene (col.6, lines 29-35).

Regarding Claim 16, Peiffer et al. disclose wherein the core layer comprises a polymer selected from the group as instantly claimed (col.4, lines 12-23).

Regarding Claim 17, Peiffer et al. disclose wherein the transition layer comprises a polymer selected from the group as instantly claimed (col.7, lines 17-29 and col.5, line 57-col.6, line 50).

Regarding Claim 18, Peiffer et al. disclose the core layer comprises about 40 to 100% of the total thickness of the film (col.7, lines 28-32), which encompasses the instantly claimed range.

Regarding Claim 19, Peiffer et al. disclose a total thickness of the film is 4 to 100 microns (0.004 to 0.1 mils) (col.7, lines 28-32).

Regarding Claim 20, Peiffer et al. disclose wherein the first transition layer has a thickness of about 0.2 to about 6 microns and wherein the first skin layer has a thickness of about 0.1 to about 3 microns (col.7, lines 14-27).

Regarding Claims 21 and 23, Peiffer et al. disclose wherein the silicone additive has a viscosity greater than about 1,000,000 centistokes, and greater than about 1,000 centistokes (col.5, lines 36-39). It is the Examiner's position that centistokes convert 1:1 to mm^2/S .

Regarding Claims 24 and 25, Peiffer et al. disclose wherein the first transition layer comprises from 0.02 to 2.0% silicone additive (col.5, lines 30-35), which encompasses the instantly claimed ranges.

Regarding Claims 31-33, Peiffer et al. disclose a method of making a film comprising the steps coextruding the film through a die wherein the film comprises a core layer comprising a polyolefin wherein the core layer comprises the interior of the film, a first transition layer comprising a polyolefin and a silicon additive, wherein the first transition layer is exterior to the core layer, and a first skin layer comprising a polyolefin, and being substantially free of a silicon additive, wherein the first skin layer is exterior to the first transition layer, and wherein the first skin layer is exterior to the core layer, cooling/quenching the film, and surface treating one or more exposed surfaces of the film with a corona, flame, or plasma treatment (col.7, lines 36-55 and the same reasoning as set forth for Claim 1 above, as the claimed subject matter is essentially the same).

Regarding Claims 32 and 33, Peiffer et al. disclose orienting the film in the machine direction, and further orienting the film in the transverse direction (col.7, lines 56-65).

Regarding Claim 34, the same reasoning as set forth above for Claims 1, 10, and 17 also applies to Claim 34, as the claimed subject matter is essentially the same, except for the addition of a second skin layer. Peiffer et al. disclose the instantly claimed structure (col.7, lines 1-6).

Regarding Claims 35-37, Peiffer et al. disclose wherein the second skin layer and wherein the first skin layer are treated as instantly claimed (col.8, lines 15-18).

Regarding Claim 38, the same reasoning as set forth above for Claim 34 also applies to Claim 38, as the claimed subject matter is essentially the same, except for the addition of a second tie layer. Peiffer et al. disclose the instantly claimed structure (col.7, lines 1-6).

Regarding Claims 39-41, Peiffer et al. disclose wherein the second skin layer and wherein the first skin layer are treated as instantly claimed (col.8, lines 15-18).

Regarding Claim 42, Peiffer et al. disclose a thermoplastic film comprising a core layer comprising polypropylene homopolymer, wherein the core layer comprises the interior of the film, a first tie layer exterior to and on one side of the core layer, the first tie layer comprising a silicon additive (col.6, lines 60-67) and a material selected from the instantly claimed group (col.7, lines 19-20), a first skin layer exterior to the core layer and the first tie layer on the same side of the core as the first tie layer, wherein the first skin layer comprises material selected from the instantly claimed group (col.5, line 57-col.6, line 37), a second tie layer exterior to the core layer and on a side of the core layer opposite to the first tie layer and first skin layer, the second tie layer comprising material selected from the instantly claimed group (col.5, line 57-col.6, line 37), and a second skin layer exterior to the core layer and the second tie layer, and on a side of the core opposite to the first tie layer and first skin layer, wherein the second skin layer comprises a material selected from the group as instantly claimed (col.6, lines 51-56).

Regarding Claims 43-45, Peiffer et al. disclose wherein the second skin layer and wherein the first skin layer are treated as instantly claimed (col.8, lines 15-18).

Regarding Claims 48-50, Peiffer et al. disclose a film wherein the core layer further comprises an additive of a material of calcium carbonate having a mean particle range of between 1 and 6 microns (col.5, lines 18-28), which is included in the instantly claimed range.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, 22, 26, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (6,086,982). Peiffer et al., as applied to Claim 1 above, are as set forth and incorporated herein. Regarding Claims 5 and 6, Peiffer et al. do appear to specifically disclose in which a sufficient amount of silicone additive is incorporated in the first transition layer as to migrate through the first skin layer to exposed surfaces of the first skin layer to confer a coefficient of friction of less than about 0.7, and from about 0.2 to about 0.5. However, because Applicant has shown no criticality as to the instantly claimed ranges, and because the amount of silicone additive and the materials of the skin and transition layers of Peiffer et al. are the same as that as Applicant's, it would have been obvious to one of ordinary skill in the art at the time

Art Unit: 1712

the invention was made to have achieved at least similar coefficients of friction as that as instantly claimed, because at least similar materials would have yielded at least similar results. Similar processes can reasonably be expected to yield products which inherently have the same properties. *In re Spada* 15 USPQ 2d 1655 (CAFC 1990); *In re DeBlauwe* 222 USPQ 191; *In re Wiegand* 86 USPQ 155 (CCPA 195).

Regarding Claims 22 and 26, Peiffer et al. disclose wherein the first transition layer comprises from 0.02 to 2.0% silicone additive (col.5, lines 30-35), which encompasses the instantly claimed range. Peiffer et al. do not disclose a silicone additive having a viscosity of 10,000,000 to about 50,000,000 centistokes. However, because Applicant has shown no criticality as to the instantly claimed viscosity, and because Peiffer et al. polydimethylsiloxanes in general are used in the invention, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a silicone additive with a variety of viscosities, including that as instantly claimed, through routine experimentation and optimization. It has been held that where the general conditions are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233, 235.

Regarding Claims 29 and 30, it appears Peiffer et al. do not specifically disclose a seal strength and coefficient of friction as instantly claimed. However, because the materials of Peiffer et al. are the same as that of the instant application, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have inherently achieved an at least similar seal strength and coefficient of friction with

Peiffer et al. because at least similar materials would have yielded at least similar properties. Similar processes can reasonably be expected to yield products which inherently have the same properties. *In re Spada* 15 USPQ 2d 1655 (CAFC 1990); *In re DeBlauwe* 222 USPQ 191; *In re Wiegand* 86 USPQ 155 (CCPA 195).

Claims 28, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (6,086,982) in view of Bader et al. (5,972,496). Peiffer et al., as applied above, are as set forth and incorporated herein. Peiffer et al. disclose that it is known in the art to metallize films at least similar to that of Peiffer et al., and that the films of Peiffer et al. are used metallizing processes (col.1, lines 46-col.2, line 13). Peiffer et al. do not appear to specifically disclose vacuum metallization with aluminum. Bader et al. disclose a film structure comprising polymers the same as in the instant application (col.3, lines 38-64), and vacuum metallizing a layer, with aluminum, of thermoplastic material the same as that of the instant application (col.6, lines 8-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied metallization with aluminum by vacuum as taught by Bader et al. in the film of Peiffer et al. because Bader et al. teach that vacuum metallization of aluminum produces lower water vapor transmission rate characteristics and low oxygen transmission rate characteristics, resulting in a higher quality product.

Claims 27 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (6,068,982) in view of Touhsaent (6,013,353). Peiffer et al., as

Art Unit: 1712

applied above, are as set forth and incorporated herein. Regarding Claim 27, Peiffer et al. do not appear to disclose applying a coating to a skin layer from the group as instantly claimed. Touhsaent discloses applying acrylics to a polymer skin layer, and that this is well known in the art (col.5, line 53-col.6, line 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the layer of acrylics as taught by Touhsaent to the polymer skin layer of Peiffer et al. because Touhsaent teaches that applying a layer of acrylics to a polymer skin layer in a multilayer film is well-known in the art and it produces increased adherence of following polymeric layers resulting in a higher quality product.

Regarding Claim 51, Peiffer et al. disclose a core layer comprising incompatible organic polymers, such as polyamides and polyesters, with a size range of between 1 and 6 microns and an amount of from 0.1 to about 2% by weight (col.5, lines 18-29). Peiffer et al. do not specifically disclose polybutylene terephthalate (PBT). Touhsaent discloses a film structure with a polymer core layer comprising polybutylene terephthalate with a size of 0.1 to 10 microns and an amount of up to about 20 weight percent (col.2, lines 46-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used PBT as taught by Touhsaent in the core layer of Peiffer et al. because Touhsaent teaches that using PBT produces a film that is opaque after orientation, resulting in a more versatile film.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Keehan whose telephone number is (703) 305-2778. The examiner can normally be reached on Monday-Friday, from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Christopher Keehan *cmk*

April 11, 2002



Robert Dawson
Supervisory Patent Examiner
Technology Center 1700